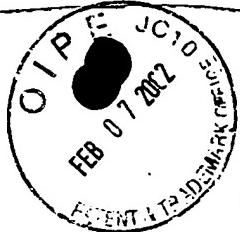


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1

SEQUENCE LISTING

<110> Naparstek, Yaakov
Ulmansky, Rina
Kashi, Yechezkel

<120> NOVEL AMINO ACID SEQUENCES, DNA ENCODING
THE AMINO ACID SEQUENCES, ANTIBODIES DIRECTED AGAINST SUCH
SEQUENCES AND THE DIFFERENT USES THEREOF

<130> 13125-002001

<140> 09/847,637
<141> 2001-05-02

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COPY OF PAPERS
ORIGINALLY FILED

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1 5 10 15
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35 40 45
Thr Asn Asp Gly Val Ser Ile Ala Lys Glu Ile Glu Leu Glu Asp Pro
50 55 60
Tyr Glu Lys Ile Gly Ala Glu Leu Val Lys Glu Val Ala Lys Lys Thr
65 70 75 80
Asp Asp Val Ala Gly Asp Gly Thr Thr Ala Thr Val Leu Ala Gln
85 90 95
Ala Leu Val Arg Glu Gly Leu Arg Asn Val Ala Ala Gly Ala Asn Pro
100 105 110
Leu Gly Leu Lys Arg Gly Ile Glu Lys Ala Val Glu Lys Val Thr Glu
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Thr Leu Leu Lys Gly Ala Lys Glu Val Glu Thr Lys Glu Gln Ile Ala
130 135 140
Ala Thr Ala Ala Ile Ser Ala Gly Asp Gln Ser Ile Gly Asp Leu Ile
145 150 155 160
Ala Glu Ala Met Asp Lys Val Gly Asn Glu Gly Val Ile Thr Val Glu
165 170 175
Glu Ser Asn Thr Phe Gly Leu Gln Leu Glu Leu Thr Glu Gly Met Arg
180 185 190
Phe Asp Lys Gly Tyr Ile Ser Gly Tyr Phe Val Thr Asp Pro Glu Arg
195 200 205
Gln Glu Ala Val Leu Glu Asp Pro Tyr Ile Leu Leu Val Ser Ser Lys
210 215 220
Val Ser Thr Val Lys Asp Leu Leu Pro Leu Leu Glu Lys Val Ile Gly
225 230 235 240
Ala Gly Lys Pro Leu Leu Ile Ile Ala Glu Asp Val Glu Gly Glu Ala
245 250 255

Leu	Ser	Thr	Leu	Val	Val	Asn	Lys	Ile	Arg	Gly	Thr	Phe	Lys	Ser	Val
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Ala	Val	Lys	Ala	Pro	Gly	Phe	Gly	Asp	Arg	Arg	Lys	Ala	Met	Leu	Gln
		275				280					285				
Asp	Met	Ala	Ile	Leu	Thr	Gly	Gly	Gln	Val	Ile	Ser	Glu	Glu	Val	Gly
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Leu	Thr	Leu	Glu	Asn	Ala	Asp	Leu	Ser	Leu	Leu	Gly	Lys	Ala	Arg	Lys
305			310						315				320		
Val	Val	Val	Thr	Lys	Asp	Glu	Thr	Thr	Ile	Val	Glu	Gly	Ala	Gly	Asp
			325				330				335				
Thr	Asp	Ala	Ile	Ala	Gly	Arg	Val	Ala	Gln	Ile	Arg	Gln	Glu	Ile	Glu
		340				345					350				
Asn	Ser	Asp	Ser	Asp	Tyr	Asp	Arg	Glu	Lys	Leu	Gln	Glu	Arg	Leu	Ala
		355				360					365				
Lys	Leu	Ala	Gly	Gly	Val	Ala	Val	Ile	Lys	Ala	Gly	Ala	Ala	Thr	Glu
	370				375				380						
Val	Glu	Leu	Lys	Glu	Arg	Lys	His	Arg	Ile	Glu	Asp	Ala	Val	Arg	Asn
385				390					395				400		
Ala	Lys	Ala	Ala	Val	Glu	Glu	Gly	Ile	Val	Ala	Gly	Gly	Gly	Val	Thr
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Leu	Leu	Gln	Ala	Ala	Pro	Thr	Leu	Asp	Glu	Leu	Lys	Leu	Glu	Gly	Asp
		420					425				430				
Glu	Ala	Thr	Gly	Ala	Asn	Ile	Val	Lys	Val	Ala	Leu	Glu	Ala	Pro	Leu
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Lys	Gln	Ile	Ala	Phe	Asn	Ser	Gly	Leu	Glu	Pro	Gly	Val	Val	Ala	Glu
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Lys	Val	Arg	Asn	Leu	Pro	Ala	Gly	His	Gly	Leu	Asn	Ala	Gln	Thr	Gly
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			485					490				495			
Thr	Arg	Ser	Ala	Leu	Gln	Asn	Ala	Ala	Ser	Ile	Ala	Gly	Leu	Phe	Leu
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Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala
   35          40          45
Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile
   50          55          60
Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val
   65          70          75          80
Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys
   85          90          95
Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly
  100         105         110

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Thr Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe
 115 120 125
 Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg Gly Val
 130 135 140
 Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln Ser Lys
 145 150 155 160
 Pro Val Thr Thr Pro Glu Glu Ile Ala Gln Val Ala Thr Ile Ser Ala
 165 170 175
 Asn Gly Asp Lys Asp Ile Gly Asn Ile Ile Ser Asp Ala Met Lys Lys
 180 185 190
 Val Gly Arg Lys Gly Val Ile Thr Val Lys Asp Gly Lys Thr Leu Asn
 195 200 205
 Asp Glu Leu Glu Ile Ile Glu Gly Met Lys Phe Asp Arg Gly Tyr Ile
 210 215 220
 Ser Pro Tyr Phe Ile Asn Thr Ser Lys Gly Gln Lys Cys Glu Phe Gln
 225 230 235 240
 Asp Ala Tyr Val Leu Leu Ser Glu Lys Lys Ile Ser Ser Val Gln Ser
 245 250 255
 Ile Val Pro Ala Leu Glu Ile Ala Asn Ala His Arg Lys Pro Leu Val
 260 265 270
 Ile Ile Ala Glu Asp Val Asp Gly Glu Ala Leu Ser Thr Leu Val Leu
 275 280 285
 Asn Arg Leu Lys Val Gly Leu Gln Val Val Ala Val Lys Ala Pro Gly
 290 295 300
 Phe Gly Asp Asn Arg Lys Asn Gln Leu Lys Asp Met Ala Ile Ala Thr
 305 310 315 320
 Gly Gly Ala Val Phe Gly Glu Glu Gly Leu Asn Leu Asn Leu Glu Asp
 325 330 335
 Val Gln Ala His Asp Leu Gly Lys Val Gly Glu Val Ile Val Thr Lys
 340 345 350
 Asp Asp Ala Met Leu Leu Lys Gly Lys Gly Asp Lys Ala His Ile Glu
 355 360 365
 Lys Arg Ile Gln Glu Ile Thr Glu Gln Leu Asp Ile Thr Thr Ser Glu
 370 375 380
 Tyr Glu Lys Glu Lys Leu Asn Glu Arg Leu Ala Lys Leu Ser Asp Gly
 385 390 395 400
 Val Ala Val Leu Lys Val Gly Gly Thr Ser Asp Val Glu Val Asn Glu
 405 410 415
 Lys Lys Asp Arg Val Thr Asp Ala Leu Asn Ala Thr Arg Ala Ala Val
 420 425 430
 Glu Glu Gly Ile Val Leu Gly Gly Cys Ala Leu Leu Arg Cys Ile
 435 440 445
 Pro Ala Leu Asp Ser Leu Lys Pro Ala Asn Glu Asp Gln Lys Ile Gly
 450 455 460
 Ile Glu Ile Ile Lys Arg Ala Leu Lys Ile Pro Ala Met Thr Ile Ala
 465 470 475 480
 Lys Asn Ala Gly Val Glu Gly Ser Leu Ile Val Glu Lys Ile Leu Gln
 485 490 495
 Ser Ser Ser Glu Val Gly Tyr Asp Ala Met Leu Gly Asp Phe Val Asn
 500 505 510
 Met Val Glu Lys Gly Ile Ile Asp Pro Thr Lys Val Val Arg Thr Ala
 515 520 525
 Leu Leu Asp Ala Ala Gly Val Ala Pro Leu Leu Thr Thr Ala Glu Ala
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 Met Gly Gly Met Gly Gly Met Gly Gly Met Phe

565

570

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<211> 573
<212> PRT
<213> Homo sapiens

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Gly	Ala	Asp	Ala	Arg	Ala	Leu	Met	Leu	Gln	Gly	Val	Asp	Leu	Leu	Ala
	35					40					45				
Asp	Ala	Val	Ala	Val	Thr	Met	Gly	Pro	Lys	Gly	Arg	Thr	Val	Ile	Ile
	50					55					60				
Glu	Gln	Ser	Trp	Gly	Ser	Pro	Lys	Val	Thr	Lys	Asp	Gly	Val	Thr	Val
	65					70					75				80
Ala	Lys	Ser	Ile	Asp	Leu	Lys	Asp	Lys	Tyr	Lys	Asn	Ile	Gly	Ala	Lys
	85					90					95				
Leu	Val	Gln	Asp	Val	Ala	Asn	Asn	Thr	Asn	Glu	Glu	Ala	Gly	Asp	Gly
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Thr	Thr	Thr	Ala	Thr	Val	Leu	Ala	Arg	Ser	Ile	Ala	Lys	Glu	Gly	Phe
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Glu	Lys	Ile	Ser	Lys	Gly	Ala	Asn	Pro	Val	Glu	Ile	Arg	Arg	Gly	Val
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	180					185					190				
Val	Gly	Arg	Lys	Gly	Val	Ile	Thr	Val	Lys	Asp	Gly	Lys	Thr	Leu	Asn
	195					200					205				
Asp	Glu	Leu	Glu	Ile	Ile	Glu	Gly	Met	Lys	Phe	Asp	Arg	Gly	Tyr	Ile
	210					215					220				
Ser	Pro	Tyr	Phe	Ile	Asn	Thr	Ser	Lys	Gly	Gln	Lys	Cys	Glu	Phe	Gln
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Asp	Ala	Tyr	Val	Leu	Leu	Ser	Glu	Lys	Lys	Ile	Ser	Ser	Ile	Gln	Ser
	245					250					255				
Ile	Val	Pro	Ala	Leu	Glu	Ile	Ala	Asn	Ala	His	Arg	Lys	Pro	Leu	Val
	260					265					270				
Ile	Ile	Ala	Glu	Asp	Val	Asp	Gly	Glu	Ala	Leu	Ser	Thr	Leu	Val	Leu
	275					280					285				
Asn	Arg	Leu	Lys	Val	Gly	Leu	Gln	Val	Val	Ala	Val	Lys	Ala	Pro	Gly
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Phe	Gly	Asp	Asn	Arg	Lys	Asn	Gln	Leu	Lys	Asp	Met	Ala	Ile	Ala	Thr
	305					310					315				320
Gly	Gly	Ala	Val	Phe	Gly	Glu	Glu	Gly	Leu	Thr	Leu	Asn	Leu	Glu	Asp
	325					330					335				
Val	Gln	Pro	His	Asp	Leu	Gly	Lys	Val	Gly	Glu	Val	Ile	Val	Thr	Lys
	340					345					350				
Asp	Asp	Ala	Met	Leu	Leu	Lys	Gly	Lys	Gly	Asp	Lys	Ala	Gln	Ile	Glu
	355					360					365				
Lys	Arg	Ile	Gln	Glu	Ile	Ile	Glu	Gln	Leu	Asp	Val	Thr	Thr	Ser	Glu
	370					375					380				
Tyr	Glu	Lys	Glu	Lys	Leu	Asn	Glu	Arg	Leu	Ala	Lys	Leu	Ser	Asp	Gly

B1

385	390	395	400
Val Ala Val Leu Lys Val	Gly Gly Thr Ser Asp Val	Glu Val Asn Glu	
405	410	415	
Lys Lys Asp Arg Val Thr Asp Ala	Leu Asn Ala Thr Arg Ala	Ala Val	
420	425	430	
Glu Glu Gly Ile Val Leu Gly	Gly Cys Ala Leu Leu	Arg Cys Ile	
435	440	445	
Pro Ala Leu Asp Ser Leu	Thr Pro Ala Asn Glu Asp Gln	Lys Ile Gly	
450	455	460	
Ile Glu Ile Ile Lys Arg	Thr Leu Lys Ile Pro Ala Met Thr	Ile Ala	
465	470	475	480
Lys Asn Ala Gly Val Glu	Gly Ser Leu Ile Val Glu Lys Ile	Met Gln	
485	490	495	
Ser Ser Ser Glu Val Gly	Tyr Asp Ala Met Ala Gly Asp Phe	Val Asn	
500	505	510	
Met Val Glu Lys Gly Ile	Ile Asp Pro Thr Lys Val Val	Arg Thr Ala	
515	520	525	
Leu Leu Asp Ala Ala Gly	Val Ala Ser Leu Leu Thr Thr	Ala Glu Ala	
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<212> PRT

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Ile Gly Ala Leu Val Val	Ala Thr Ala Gly Asp Gly	Thr Thr Thr Ala	
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Thr Val Leu Ala Glu	Gly Gly Ala Asn Pro Arg	Gly Ala Val Val Leu	
50	55	60	
Lys Lys Val Thr Glu	Ile Ala Ala Ile Ser Ala	Gly Asp Ile Gly Ile	
65	70	75	80
Ala Met Lys Val Gly	Gly Val Ile Thr Val Thr	Leu Glu Glu Gly Met	
85	90	95	
Phe Asp Gly Tyr	Ile Ser Tyr Phe Gln Asp	Tyr Leu Leu Lys Ser Pro	
100	105	110	
Leu Glu Lys Pro Leu	Ile Ile Ala Glu Asp Val	Gly Glu Ala Leu Ser	
115	120	125	
Thr Leu Val Asn Val	Ala Val Lys Ala Pro Gly	Phe Gly Asp Arg Lys	
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Leu Asp Met Ala Ile	Thr Gly Gly Val Glu Glu	Leu Leu Glu Leu Gly	
145	150	155	160
Lys Val Val Thr Lys	Asp Gly Gly Asp Ile Arg	Ile Ser Tyr Glu Lys	
165	170	175	
Leu Glu Arg Leu Ala	Lys Leu Gly Val Ala Val	Lys Gly Val Glu Glu	
180	185	190	

Lys Arg Asp Ala Ala Ala Val Glu Glu Gly Ile Val Gly Gly Gly Leu
195 200 205
Leu Pro Leu Asp Leu Asp Gly Ile Lys Leu Pro Leu Ala Asn Gly Glu
210 215 220
Glu Lys Gly Ala Gly Gly Asp Pro Lys Val Arg Ala Leu Ala Ala Ala
225 230 235 240
Leu Thr Glu Val Val Pro Glu Lys Pro Gly Gly Met Gly Gly Met
245 250 255

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